RECEIVED CENTRAL FAX CENTER

MAY 2 0 2005

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the application of: Audrea D. Branch, et al.

Serial No.: 10/601,020

Filed: June 20, 2003

For: NOVEL HEPATITUS C VIRUS PEPTIDES AND

USES THEREOF

Attorney Docket No.: RII-003CPUSDV1

. DII 662CDUSDVI

Commissioner for Patents

P.O. Box 1450

Alexandria, Virginia 22313-1450

Hiereby certify that this correspondence is being factionale transmitted to the Patent and Trademark Office, recumile no (703) 872-9306 at Commissioner for Patents, P.O. Box 1450, Alexandria, VA. 22313-1450, on the date shown below

Commissioner for Patents, PO Box 1450, Alexandria, VA 22313-1450, on the date shown below

Dated May 20, 2005

ignature Meg (Meg

(Megan E Williams)

Group Art Unit: 1648

Examiner: Timothy M. Brown

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Dear Sir

For the Examiner's convenience in reviewing this divisional application, Applicants submit a consolidated PTO Form SB/08, listing all references cited during the prosecution of the parent application. The present application is a Divisional of U.S. Serial No. 09/719,277, filed April 13, 2001 (Atty. Docket No. RII-003CPUS. All references listed on the enclosed PTO Form SB/08 have been previously cited by or submitted to the Office in the prior application, and, in accordance with 37 CFR §1.98(d), copies of the references are not enclosed but will be provided upon request.

This statement is not to be interpreted as a representation that the cited publications are material, that an exhaustive search has been conducted, or that no other relevant information exists. Nor shall the citation of any publication herein be construed *per se* as a representation that such publication is prior art. Moreover, the

20-May-05 04:22pm From-LAHIVE+COCKFIELD 617 7424214

T-127 P.24/26 F-144

Serial Number: 10/601,020

Page -2-

Group Art Unit: 1648

Applicants understand that the Examiner will make an independent evaluation of the cited publications.

Under 37 CFR § 1.97(b)(3), no additional costs are believed to be due in connection with the filing of this disclosure. If, however, a first Office Action on the merits issues in this application bearing a mailing date prior to the date of this Information Disclosure Statement, please charge the appropriate fee as required under 37 CFR §1.17(p) to our Deposit Order Account No. 12-0080.

Respectfully submitted, LAHIVE & COCKFIELD, LLP

Megan E. Williams Registration No. 43,270 Attorney for Applicants

28 State Street Boston, MA 02109 (617) 227-7400

Date: May 20, 2005

GAD/MEW/rl Enclosures

PTO/SB/08a/2 (08-03)

Approved for use through 07/31/2006 OM8 0651-0031

U.S. Patent and Tragement Office, U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Complete if Known Substitute for form 1448A/B/PTO 10/601,020 Application Number INFORMATION DISCLOSURE June 20, 2003 Filing Date STATEMENT BY APPLICANT First Named Inventor Andrea D. Branch, et al. 1648 Art Unit (Use as many sheets as necossary) Examiner Name Timothy M. Brown 2 Attorney Docket Number RII-003CPUSDV1 of Speet

U.S. PATENT DOCUMENTS							
E-aminor	Citta No '	Document number	Publication Date MW-DD-YYYY	Name of Patentee or	Pages, Columns, Lines, Where		
Examiner Initials		Numper-Kina Coas ² (# known)		Applicant of Cited Document	Rejavant Passages or Relevant Figures Appear		

FOREIGN PATENT DOCUMENTS							
Examiner Invials	Cite No.1	Foreign Patent Document Country Code*-Number*-Numb Code*(if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages Columns Lines, Where Reievant Passages or Relevant Figures Appear		
			(Г	

"EXAMINER Initial if reference considered, whether or not cristion is in conformance with MPEP 800. Draw line through cutation if not in conformance and not considered. Include copy of this form with next communication to applicant." Applicant's unique cutation designation number (optional). "See Kinds Codes of uSPTO Patient Documents at www.uspto.gov. or MPEP 901.04." Enter Ottice shall study the document, by the two-letter code (WIPO Standard ST.3). "For optional patient documents, the indication of the year of the reign of the Emperor must precede the senal number of the patient document." Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. "Applicant is to place a check mark here if English language Translation is attached.

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials	Cite No '	include name of the author (in CAPITAL LETTERS), title of the arricle (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-assue number(s), publisher, city and/or country where published.	T²
	B1	Boulant, S. et al. "Unusual multiple recoding events leading to alternative forms of hepatitis C. virus core protein from Genotype 1b." J Biol Chem. 2003 Nov 14: 278(46).45785-92	
	B2	Branch, A.D., et al. "The hepatitis C virus alternate reading frame (ARF) and its family of novel products: the alternate reading frame protein/F-protein, the double-frameshift protein, and others." Semin Liver Dis. 2005 Feb. 25(1):105-17	
	B3	Choi, J., et al. "Triple: decoding of hepatris C virus RNA by programmed translational frameshifting." Mol Cell Biol. 2003 Mar; 23(5).1489-97.	
	B4	Komurian-Pradel, F., et al "Antigenic relevance of F protein in chronic hepatitis C virus infection." Hepatology. 2004 Oct, 40(4) 900-9	
	B5	Ogata, S, et al. "Comparative sequence analysis of the core protein and its frameshift product, the F protein, of hepatitis C virus subtype 1b strains obtained from patients with and without hepatocellular cardinoma." J Clin Microbiol. 2002 Oct. 40(10):3625-30.	
	В6	Rodriguez-Lopes, M. "Immunogenecity of variable regions of hepatitis C proteins" Journ. Of Gen. Virol. 1999, 80 727-73.	
•	B7	Roussel, J., et al. "Characterization of the expression of the Hepatitis C virus F protein." J. Virol. 2003, 84 1751-1759	
	B8	Tan, S-L., et al. "Hepatitis C therapeutics current status and emerging strategies." Nature 2002 Nov; 1.867-881	
	B9	Vassilaki, N et al. "Two alternative translation mechanisms are responsible for the expression of the HCV ARFT/F/Core +1 coding open reading frame." J Biol Chem. 2003 Oct, 278 40503-40513.	

Examiner	Date	
Signature		sidered

PTO/SB/08a/b (08-03)
Approved for use through 07/31/2006 OMB 0651-0031
US Patent and Tradernam Office, US DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respons to a collection of information unless a contains a valid OMB control number

Sut	stitute for form 1449A/B/I	710		Complete if Known		
				Application Number	10/601,020	
11	IFORMATIO	N DISC	LOSURE	Filing Date	June 20, 2003	
S	TATEMENT	BY AP	PLICANT	First Named Inventor	Andrea D. Branch, et al	
				Art unit	1648	
	(Use as many s	iheets as nec	essary)	Examiner Name	Timothy M. Brown	
Sheet	2	of	2	Attorney Docket Number	RII-003CPUSDV1	

NON PATENT LITERATURE DOCUMENTS						
Examiner Indials	Cite No.1	include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, senal, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	γ2			
	C1	Walewski, J.L., et al. "Reading between the lines evidence for a new Hepatitis C virus protein." Hepatology, 2003 Sep. 36(3) 757-60				
	C2	Walewski, J.L., et al. "Mutation Master: profiles of substitutions in nepatitis C virus RNA of the core, alternate reading frame, and NS2 coding regions." RNA, 2002 May, 8(5) 557-71				
	Ç3	Walewski, J.L., et al. "Evidence for a new hepatitis C virus antigen encoded in an overlapping reading frame." RNA, 2001 May, 7(5),710-21.				
	C4	Walewski, J.L., et al. "HCV patients have antibodies against a novel protein encoded in a second reading frame." Hepatology 28 (4, Pt. 2):278A, Abstr. 462 (October 1998).				
	C5	Xu, Z., et al. "Hepatitis C virus F protein is a short-lived protein associated with the endoplasmic reticulum." J Virol. 2003 Jan; 77(2):1578-83.				
	C6	Yeh, C-T, et al. "Amino acid substitutions in codons 9-11 of hepatitis C virus core protein lead to the synthesis of a short core protein product." J Gastroenterol Hepatol. 2000 Feb; 15(2) 182-91				

[&]quot;EXAMINER Initial if reference considered, whether or not operion is in conformance with MPEP 609. Draw line through castion if not in conformance and not considered. Include copy of this form with next communication to applicant.

Examiner	Pare		
Signature	 Considered	1	

^{&#}x27;Applicants unique citation designation number (optional). 'Applicant is to place a check mark here if English language Translation is stracted